SEQUENCE LISTING

<110> WATZELE, MANFRED
BUCHBERGER, BERND
PAULUS, MICHAEL

<120> OPTIMIZED PROTEIN SYNTHESIS

<130> 6398-78031

<140> 10/538,405
<141> 2005-06-09

<150> PCT/EP03/013964
<151> 2003-12-09

<150> DE 10257479.0
<151> 2002-12-09

<160> 73

<170> PatentIn Ver. 3.3

<210> 1
<211> 84
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer C

<400> 1
gaaattaata cgactcacta tagggagacc acaacggttt ccctctagaa ataattttgt 60
ttaactttaa gaaggagata tacc 84

<210> 2
<211> 71
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer D

<400> 2
caaaaaaccc ctcaagaccc gtttagaggc cccaaggggg gccgccagtg tgctgaattc 60
gcctttttatt a 71

<210> 3
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer A

<400> 3
aggagatata ccatgactag caaaggagaa 30

<210> 4
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer A stem length 4 bp

<400> 4
aggagatata ccatgactaa ttttagtact agcaaaggag aa 42

<210> 5
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer A stem length 5 bp

<400> 5
aggagatata ccatgactgt ttatacagta actagcaaag gagaa 45

<210> 6
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer A stem length 6 bp

<400> 6
aggagatata ccatgactgg tcaattacca gtaactagca aaggagaa 48

<210> 7
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer A stem length 7 bp

<400> 7
aggagatata ccatgactgc tttacatcaa gcagtaacta gcaaaggaga a 51

<210> 8
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer A stem length 8 bp

<400> 8
aggagatata ccatgactgc acgtgatcgt gcagtaacta gcaaaggaga a 51

<210> 9
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer B

<400> 9
attcgccttt tattaatgat gatgatgatg 30

<210> 10
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer A

<400> 10
aggagatata ccatgactag cactgcacgt gcatcgtgca gtgtaaaagg agaagaactt 60

<210> 11
<211> 63
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer A

<400> 11
aggagatata ccatgactag caaaactgca cgtgcatcgt gcagtgtagg agaagaactt 60
ttc 63

<210> 12
<211> 66
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer A

<400> 12
aggagatata ccatgactag caaaggaact gcacgtgcat cgtgcagtgt agaagaactt 60
ttcact 66

<210> 13
<211> 69
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer A

<400> 13
aggagatata ccatgactag caaaggagaa actgcacgtg catcgtgcag tgtagaactt 60
ttcactgga 69

<210> 14
<211> 72
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer A

<400> 14
aggagatata ccatgactag caaaggagaa gaaactgcac gtgcatcgtg cagtgtactt 60
ttcactggag tt 72

<210> 15
<211> 75
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer A

<400> 15
aggagatata ccatgactag caaaggagaa gaacttactg cacgtgcatc gtgcagtgta 60
ttcactggag ttgtc 75

<210> 16
<211> 71
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
primer D

<400> 16
caaaaaaccc ctcaagaccc gtttagaggc cccaaggggt tgggagtaga atgttaagga 60
ttagtttatt a 71

<210> 17
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
primer A

<400> 17
aggagatata ccatgaaata tacatattct ctgcacgtga tcgtgcaggc taacaccgcg 60

<210> 18
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
primer A

<400> 18
aggagatata ccatgaaaac atattattct ctgcacgtga tcgtgcaggc taacaccgcg 60

<210> 19
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
primer A

<400> 19
aggagatata ccatgaaata ttcttataca ctgcacgtga tcgtgcaggc taacaccgcg 60

<210> 20
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
primer A

<400> 20
aggagatata ccatgaaata ttattctaca ctgcacgtga tcgtgcaggc taacaccgcg 60

<210> 21
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
primer A

<400> 21
aggagatata ccatgaaata tacatattca ctgcacgtga tcgtgcaggc taacaccgcg 60

<210> 22
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
primer A

<400> 22
aggagatata ccatgaaaac atattattca ctgcacgtga tcgtgcaggc taacaccgcg 60

<210> 23
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
primer A

<400> 23
aggagatata ccatgaaata ttcatataca ctgcacgtga tcgtgcaggc taacaccgcg 60

<210> 24
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
primer A

<400> 24
aggagatata ccatgaaata ttattcaaca ctgcacgtga tcgtgcaggc taacaccgcg 60

<210> 25
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
primer A

<400> 25
aggagatata ccatgcatca tcatcatcat ctgcacgtga tcgtgcaggc taacaccgcg 60

<210> 26
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
primer wild type

<400> 26
aggagatata ccatggctaa caccgcg 27

<210> 27
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
primer B

<400> 27
aggattagtt tattaatgat gatgatgatg atggcgccgg gtgcgcga 48

<210> 28
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
primer A

<400> 28
aggagatata ccatgaaata tacatattct ctgcacgtga tcgtgcaggg tgccccgacg 60

<210> 29
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
primer A

<400> 29
aggagatata ccatgaaaac atattattct ctgcacgtga tcgtgcaggg tgccccgacg 60

<210> 30
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
primer A

<400> 30
aggagatata ccatgaaata ttcttataca ctgcacgtga tcgtgcaggg tgccccgacg 60

<210> 31
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
primer A

<400> 31
aggagatata ccatgaaata ttattctaca ctgcacgtga tcgtgcaggg tgccccgacg 60

<210> 32
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
primer A

<400> 32
aggagatata ccatgaaata tacatattca ctgcacgtga tcgtgcaggg tgccccgacg 60

<210> 33
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
primer A

<400> 33
aggagatata ccatgaaaac atattattca ctgcacgtga tcgtgcaggg tgccccgacg 60

<210> 34
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
primer A

<400> 34
aggagatata ccatgaaata ttcatataca ctgcacgtga tcgtgcaggg tgccccgacg 60

<210> 35
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
primer A

<400> 35
aggagatata ccatgaaata ttattcaaca ctgcacgtga tcgtgcaggg tgccccgacg 60

<210> 36
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
primer A

<400> 36
aggagatata ccatgcatca tcatcatcat ctgcacgtga tcgtgcaggg tgccccgacg 60

<210> 37
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
primer A wild type

<400> 37
aggagatata ccatgggtgc cccgacg 27

<210> 38
<211> 49
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer B

<400> 38
aggattagtt tattaatgat gatgatgatg atgatccatg gcagccagc 49

<210> 39
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 39
aggagatata ccatgaaata tacatattct ctgcacgtga tcgtgcagga gttggggccc 60

<210> 40
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 40
aggagatata ccatgaaaac atattattct ctgcacgtga tcgtgcagga gttggggccc 60

<210> 41
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 41
aggagatata ccatgaaata ttcttataca ctgcacgtga tcgtgcagga gttggggccc 60

<210> 42
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 42
aggagatata ccatgaaata ttattctaca ctgcacgtga tcgtgcagga gttggggccc 60

<210> 43
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 43
aggagatata ccatgaaata tacatattca ctgcacgtga tcgtgcagga gttggggccc 60

<210> 44
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 44
aggagatata ccatgaaaac atattattca ctgcacgtga tcgtgcagga gttggggccc 60

<210> 45
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 45
aggagatata ccatgaaata ttcatataca ctgcacgtga tcgtgcagga gttggggccc 60

<210> 46
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 46
aggagatata ccatgaaata ttattcaaca ctgcacgtga tcgtgcagga gttggggccc 60

<210> 47
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer

<400> 47
aggagatata ccatgcatca tcatcatcat ctgcacgtga tcgtgcagga gttggggccc 60

<210> 48
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer A wild type

<400> 48
aggagatata ccatggagtt ggggccc 27

<210> 49
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic primer B

<400> 49
aggattagtt tattattaat gatgatgatg atgatgagaa ccccc 45

<210> 50
<211> 431
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic expression construct for mutant 1

<400> 50
gaaattaata cgactcacta tagggagacc acaacggttt ccctctagaa ataattttgt 60
ttaactttaa gaaggagata taccatgaaa tatacatatt ctctgcacgt gatcgtgcag 120
gctaacaccg cgccgggacc cacggtggcc aacaagcggg acgaaaaaca ccgtcacgtc 180
gttaacgtcg ttttggagct gccgaccgag atatcagagg ccacccaccc ggtgttggcc 240
accatgctga gcaagtacac gcgcatgtcc agcctgttta atgacaagtg cgcctttaag 300
ctggacctgt tgcgcatggt agccgtgtcg cgcacccggc gccatcatca tcatcatcat 360
taataaacta atccttaaca ttctactccc aaccccttgg ggcctctaaa cgggtcttga 420

ggggtttttt g 431

<210> 51
<211> 398
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
expression construct for wild type

<400> 51
gaaattaata cgactcacta tagggagacc acaacggttt ccctctagaa ataattttgt 60
ttaactttaa gaaggagata taccatggct aacaccgcgc cgggacccac ggtggccaac 120
aagcgggacg aaaaacaccg tcacgtcgtt aacgtcgttt tggagctgcc gaccgagata 180
tcagaggcca cccacccggt gttggccacc atgctgagca agtacacgcg catgtccagc 240
ctgtttaatg acaagtgcgc ctttaagctg gacctgttgc gcatggtagc cgtgtcgcgc 300
acccggcgcc atcatcatca tcatcattaa taaactaatc cttaacattc tactcccaac 360
cccttggggc ctctaaacgg gtcttgaggg gttttttg 398

<210> 52
<211> 632
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
expression construct mutant 1

<400> 52
gaaattaata cgactcacta tagggagacc acaacggttt ccctctagaa ataattttgt 60
ttaactttaa gaaggagata taccatgaaa tatacatatt ctctgcacgt gatcgtgcag 120
ggtgccccga cgttgccccc tgcctggcag ccctttctca aggaccaccg catctctaca 180
ttcaagaact ggcccttctt ggagggctgc gcctgcaccc cggagcggat ggccgaggct 240
ggcttcatcc actgccccac tgagaacgag ccagacttgg cccagtgttt cttctgcttc 300
aaggagctgg aaggctggga gccagatgac gaccccatag aggaacataa aaagcattcg 360
tccggttgcg ctttcctttc tgtcaagaag cagtttgaag aattaaccct tggtgaattt 420
ttgaaactgg acagagaaag agccaagaac aaaattgcaa aggaaaccaa caataagaag 480
aaagaatttg aggaaactgc gaagaaagtg cgccgtgcca tcgagcagct ggctgccatg 540
gatcatcatc atcatcatca ttaataaact aatccttaac attctactcc caacccctg 600
gggcctctaa acgggtcttg aggggttttt tg 632

<210> 53
<211> 599
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
expression construct wild type

<400> 53
gaaattaata cgactcacta tagggagacc acaacggttt ccctctagaa ataattttgt 60
ttaactttaa gaaggagata taccatgggt gccccgacgt tgccccctgc ctggcagccc 120
tttctcaagg accaccgcat ctctacattc aagaactggc ccttcttgga gggctgcgcc 180

tgcaccccgg agcggatggc cgaggctggc ttcatccact gccccactga gaacgagcca 240
gacttggccc agtgtttctt ctgcttcaag gagctggaag gctgggagcc agatgacgac 300
cccatagagg aacataaaaa gcattcgtcc ggttgcgctt tcctttctgt caagaagcag 360
tttgaagaat taacccttgg tgaatttttg aaactggaca gagaaagagc caagaacaaa 420
attgcaaagg aaaccaacaa taagaagaaa gaatttgagg aaactgcgaa gaaagtgcgc 480
cgtgccatcg agcagctggc tgccatggat catcatcatc atcatcatta ataaactaat 540
ccttaacatt ctactcccaa ccccttgggg cctctaaacg ggtcttgagg ggttttttg 599

<210> 54
<211> 1400
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
expression construct mutant 1

<400> 54
gaaattaata cgactcacta tagggagacc acaacggttt ccctctagaa ataattttgt 60
ttaactttaa gaaggagata taccatgaaa tatacatatt ctctgcacgt gatcgtgcag 120
gagttggggc ccctagaagg tggctacctg gagcttctta acagcgatgc tgacccccctg 180
tgcctctacc acttctatga ccagatggac ctggctggag aagaagagat tgagctctac 240
tcagaacccg acacagacac catcaactgc gaccagttca gcaggctgtt gtgtgacatg 300
gaaggtgatg aagagaccag ggaggcttat gccaatatcg cggaactgga ccagtatgtc 360
ttccaggact cccagctgga gggcctgagc aaggacattt tcaagcacat aggaccagat 420
gaagtgatcg gtgagagtat ggagatgcca gcagaagttg ggcagaaaag tcagaaaaga 480
cccttcccag aggagcttcc ggcagacctg aagcactgga agccagctga gccccccact 540
gtggtgactg gcagtctcct agtgggacca gtgagcgact gctccaccct gccctgcctg 600
ccactgcctg cgctgttcaa ccaggagcca gcctccggcc agatgcgcct ggagaaaacc 660
gaccagattc ccatgccttt ctccagttcc tcgttgagct gcctgaatct ccctgaggga 720
cccatccagt ttgtccccac catctccact ctgccccatg ggctctggca aatctctgag 780
gctggaacag gggtctccag tatattcatc taccatggtg aggtgcccca ggccagccaa 840
gtaccccctc ccagtggatt cactgtccac ggcctcccaa catctccaga ccggccaggc 900
tccaccagcc ccttcgctcc atcagccact gacctgccca gcatgcctga acctgccctg 960
acctcccgag caaacatgac agagcacaag acgtccccca cccaatgccc ggcagctgga 1020
gaggtctcca acaagcttcc aaaatggcct gagccggtgg agcagttcta ccgctcactg 1080
caggacacgt atggtgccga gcccgcaggc ccggatggca tcctagtgga ggtggatctg 1140
gtgcaggcca ggctggagag gagcagcagc aagagcctgg agcgggaact ggccaccccg 1200
gactgggcag aacggcagct ggcccaagga ggcctggctg aggtgctgtt ggctgccaag 1260
gagcaccggc ggccgcgtcg actcgagcga gctcccgggg ggggttctca tcatcatcat 1320
catcattaat aataaactaa tccttaacat tctactccca acccccttggg gcctctaaac 1380
gggtcttgag gggttttttg 1400

<210> 55
<211> 1367
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
expression construct wild type

<400> 55
gaaattaata cgactcacta tagggagacc acaacggttt ccctctagaa ataattttgt 60
ttaactttaa gaaggagata taccatggag ttggggcccc tagaaggtgg ctacctggag 120
cttcttaaca gcgatgctga ccccctgtgc ctctaccact tctatgacca gatggacctg 180

gctggagaag aagagattga gctctactca gaacccgaca cagacaccat caactgcgac 240
cagttcagca ggctgttgtg tgacatggaa ggtgatgaag agaccaggga ggcttatgcc 300
aatatcgcgg aactggacca gtatgtcttc caggactccc agctggaggg cctgagcaag 360
gacattttca agcacatagg accagatgaa gtgatcggtg agagtatgga gatgccagca 420
gaagttgggc agaaaagtca gaaaagaccc ttcccagagg agcttccggc agacctgaag 480
cactggaagc cagctgagcc ccccactgtg gtgactggca gtctcctagt gggaccagtg 540
agcgactgct ccaccctgcc ctgcctgcca ctgcctgcgc tgttcaacca ggagccagcc 600
tccggccaga tgcgcctgga gaaaaccgac cagattccca tgcctttctc cagttcctcg 660
ttgagctgcc tgaatctccc tgagggaccc atccagtttg tccccaccat ctccactctg 720
ccccatgggc tctggcaaat ctctgaggct ggaacagggg tctccagtat attcatctac 780
catggtgagg tgccccaggc cagccaagta ccccctccca gtggattcac tgtccacggc 840
ctcccaacat ctccagaccg gccaggctcc accagcccct tcgctccatc agccactgac 900
ctgcccagca tgcctgaacc tgccctgacc tcccgagcaa acatgacaga gcacaagacg 960
tcccccaccc aatgcccggc agctggagag gtctccaaca agcttccaaa atggcctgag 1020
ccggtggagc agttctaccg ctcactgcag gacacgtatg gtgccgagcc cgcaggcccg 1080
gatggcatcc tagtggaggt ggatctggtg caggccaggc tggagaggag cagcagcaag 1140
agcctggagc gggaactggc caccccggac tgggcagaac ggcagctggc ccaaggaggc 1200
ctggctgagg tgctgttggc tgccaaggag caccggcggc cgcgtcgact cgagcgagct 1260
cccgggggggg gttctcatca tcatcatcat cattaataat aaactaatcc ttaacattct 1320
actcccaacc ccttggggcc tctaaacggg tcttgagggg ttttttg 1367

<210> 56
<211> 938
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
expression construct

<400> 56
gaaattaata cgactcacta tagggagacc acaacggttt ccctctagaa ataattttgt 60
ttaactttaa gaaggagata taccatgaaa tatacatatt ctctgcacgt gatcgtgcag 120
actagcaaag gagaagaact tttcactgga gttgtcccaa ttcttgttga attagatggt 180
gatgttaatg ggcacaaatt ttctgtcagt ggagagggtg aaggtgatgc tacatacgga 240
aagcttaccc ttaaatttat ttgcactact ggaaaactac ctgttccatg gccaacactt 300
gtcactactt tctcttatgg tgttcaatgc ttttcccgtt atccggatca tatgaaacgg 360
catgactttt tcaagagtgc catgcccgaa ggttatgtac aggaacgcac tatatctttc 420
aaagatgacg ggaactacaa gacgcgtgct gaagtcaagt ttgaaggtga tacccttgtt 480
aatcgtatcg agttaaaagg tattgatttt aaagaagatg gaaacattct cggacacaaa 540
ctcgagtaca actataactc acacaatgta tacatcacgg cagacaaaca aaagaatgga 600
atcaaagcta acttcaaaat tcgccacaac attgaagatg gatccgttca actagcagac 660
cattatcaac aaaatactcc aattggcgat ggccctgtcc ttttaccaga caaccattac 720
ctgtcgacac aatctgccct ttcgaaagat cccaacgaaa agagagacca catggtcctt 780
cttgagtttg taacagctgc tgggattaca catggcatgg atgaactata caaacccggg 840
gggggttctc atcatcatca tcatcattaa taaactaatc cttaacattc tactcccaac 900
cccttggggc ctctaaacgg gtcttgaggg gttttttg 938

<210> 57
<211> 905
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
expression construct

<400> 57
gaaattaata cgactcacta tagggagacc acaacggttt ccctctagaa ataattttgt 60
ttaactttaa gaaggagata taccatgact agcaaaggag aagaactttt cactggagtt 120
gtcccaattc ttgttgaatt agatggtgat gttaatgggc acaaattttc tgtcagtgga 180
gagggtgaag gtgatgctac atacggaaag cttacccta aatttatttg cactactgga 240
aaactacctg ttccatggcc aacacttgtc actactttct cttatggtgt tcaatgcttt 300
tcccgttatc cggatcatat gaaacggcat gacttttca agagtgccat gcccgaaggt 360
tatgtacagg aacgcactat atctttcaaa gatgacggga actacaagac gcgtgctgaa 420
gtcaagtttg aaggtgatac ccttgttaat cgtatcgagt taaaaggtat tgattttaaa 480
gaagatggaa acattctcgg acacaaactc gagtacaact ataactcaca caatgtatac 540
atcacggcag acaaacaaaa gaatggaatc aaagctaact tcaaaattcg ccacaacatt 600
gaagatggat ccgttcaact agcagaccat tatcaacaaa atactccaat tggcgatggc 660
cctgtccttt taccagacaa ccattacctg tcgacacaat ctgccctttc gaaagatccc 720
aacgaaaaga gagaccacat ggtccttctt gagtttgtaa cagctgctgg gattacacat 780
ggcatggatg aactatacaa acccgggggg ggttctcatc atcatcatca tcattaataa 840
actaatcctt aacattctac tcccaacccc ttggggcctc taaacgggtc ttgaggggtt 900
ttttg 905

<210> 58
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
stem-loop sequence

<400> 58
cagacaaata gatatttgtc tgta 24

<210> 59
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
stem-loop sequence

<400> 59
ctgcacgtga tcgtgcag 18

<210> 60
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
6xHis tag

<400> 60
His His His His His His
1 5

<210> 61
<211> 47
<212> RNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
stem-loop sequence

<400> 61
aggagauaua ccaugacugg ucaauuacca guacuagcaa aggagaa 47

<210> 62
<211> 50
<212> RNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
stem-loop sequence

<400> 62
aggagauaua ccaugacugc uuuacaucaa gcaguacuag caaaggagaa 50

<210> 63
<211> 42
<212> RNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
stem-loop sequence

<400> 63
aggagauaua ccaugacuaa uuuuaguacu agcaaaggag aa 42

<210> 64
<211> 44
<212> RNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
stem-loop sequence

<400> 64
aggagauaua ccaugacugu uuauacagua cuagcaaagg agaa 44

<210> 65
<211> 50
<212> RNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
stem-loop sequence

<400> 65
aggagauaua ccaugacugc acgugaucgu gcaguacuag caaaggagaa 50

<210> 66
<211> 50
<212> RNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
stem-loop sequence

<400> 66
aggagauaua ccaugacuag cacugcacgu gaucgugcag uaaaggagaa 50

<210> 67
<211> 50
<212> RNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
stem-loop sequence

<400> 67
aggagauaua ccaugacuag caaaacugca cgugaucgug caguggagaa 50

<210> 68
<211> 50
<212> RNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
stem-loop sequence

<400> 68
aggagauaua ccaugacuag caaaggaacu gcacgugauc gugcagugaa 50

<210> 69
<211> 50
<212> RNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
stem-loop sequence

<400> 69
aggagauaua ccaugacuag caaaacugca cgugaucgug caguggagaa 50

<210> 70
<211> 50
<212> RNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic stem-loop sequence

<400> 70
aggagauaua ccaugacuag caaaggaacu gcacgugauc gugcagugaa 50

<210> 71
<211> 53
<212> RNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic stem-loop sequence

<400> 71
aggagauaua ccaugacuag caaaggagaa acugcacgug aucgugcagu gaa 53

<210> 72
<211> 56
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Combined DNA/RNA Molecule: Synthetic stem-loop sequence

<220>
<223> Description of Artificial Sequence: Synthetic stem-loop sequence

<400> 72
aggagauaua ccaugacuag caaaggagaa gaaacugcac gugaucgugc aguctt 56

<210> 73
<211> 59
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Combined DNA/RNA Molecule: Synthetic stem-loop sequence

<220>
<223> Description of Artificial Sequence: Synthetic
stem-loop sequence

<400> 73
aggagauaua ccaugacuag caaaggagaa gaacttacug cacgugaucg ugcaguttc 59